SECTION 8: Test Modes

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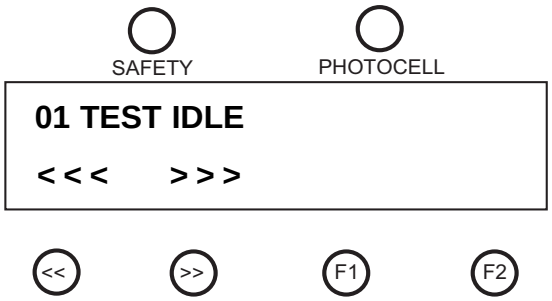
1. Test Modes 8-1

Test Modes

The PS8050 software offers a number of technician settable features and diagnostics in its Test Mode Menu so that the equipment can be set up to the customer's requirements and/or tuned to local electrical conditions. Access the test modes by pressing the digits "1", "2", and "9" on the numberic keypad while in the main operating menu (this is the menu displayed when the machine is first turned on). The display will read "01 TEST IDLE". This test program is one of the 10 available options. Each of the others is accessible by pressing the appropriate number at any time or by pressing the "<<" or ">>" keys to scroll forward or backward through the options and then "ACC" to enter that option. Leave any item by pressing the "STOP" key.

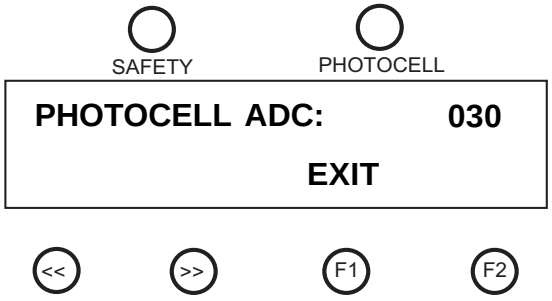
01 TEST IDLE

Test Mode 01 will run the current machine program over and over again without the need to load paper. The motor will run, stop, start and heads will fire simulating a standard run. This is useful for testing installation of new components.



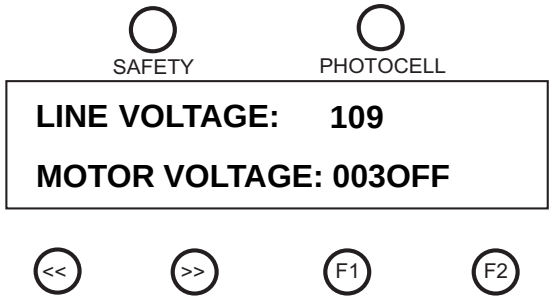
02 DISPLAY PCELL ADC

The photocell in the PS8050 is of a reflective type. It is mounted on the leading edge of the main platen operator side underneath a grooved cut-out. Above the photocell is a shiny reflector that is in a fixed position. The value should be between 30-60. Adjustment of the photocell is done directly on the main PSTEP board.



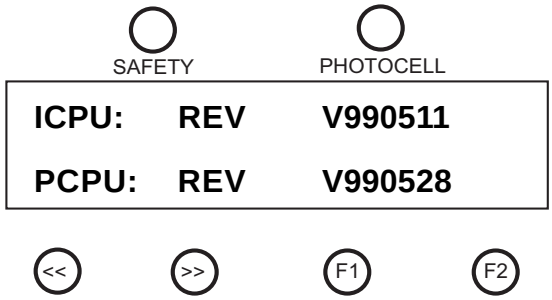
03 DISPLAY VOLTAGES

This mode will display the line voltage and actual motor voltage. When the motor is not in operation (OFF) the voltage will read approximately 0. Pressing 'F2' will bring the motor online (ONL). Typical online voltage should read approcimately 150. If the reading is above 160 there is a problem.



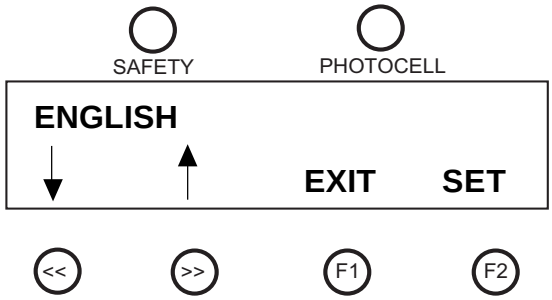
04 DISPLAY SW DATES

The software versions on the ICPU and PSTP boards are displayed.



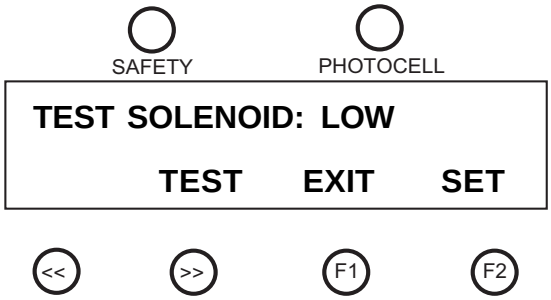
05 SET LANGUAGE

There are five languages to choose from: ENGLISH, SPANISH, GERMAN, PORTUGESE and FRENCH. Use the "<<" and ">>" buttons to scroll through the different languages. Lock in a selection by pressing "F2" or "ACC".

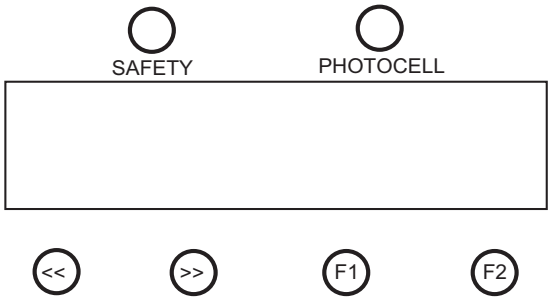


06 TEST SOLENOIDS

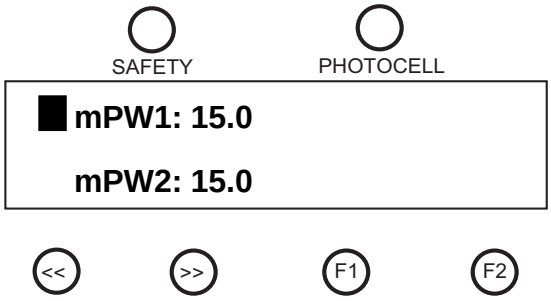
In this mode, you can test or set the minimum solenoid pulse width. Press ">>" to enter the test mode and check the functionality of the low voltage solenoid board.



PW1 stands for Pulse Width for Head 1 and PW2 for Pulse Width for Head 2. The values beside them are the Pulse Widths in nanoseconds. These values will change as the Impression Control Dials are turned. With the dials turned completely counter clockwise, the minimum solenoid pulse width will be displayed. To fire the heads plugged into the first channel, press "F1". Press "F2" to fire the heads plugged into the second channel. To obtain a continuous pulse, press the "<<" key.

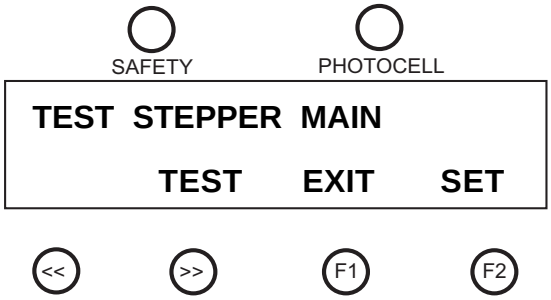


To set the minimum solenoid pulse widths, press "STOP" and then "F2". A block beside the number indicates which head will be fired by selecting "F1" or "F2". Use the "<<" and ">>" keys to increase or decrease the pulse width. With the air pressure through the regulator set between 40-50 psi, adjust the pulse width value up or down to provide a well inked number which does not emboss a light paper weight (20#/75 gsm bond). The next head can be adjusted in this same manner. Default setting for this is 15.0. Press "ACC" to save the value to the EEPROM and return to the Test Menu. If you do not want to save the changes, press "ESC" or "Stop".



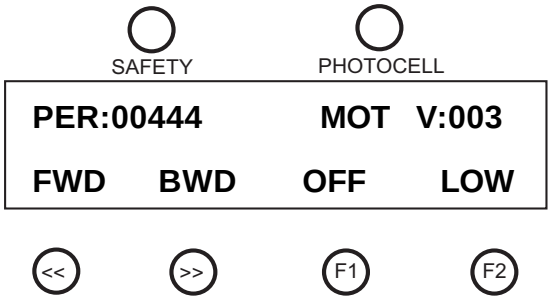
07 TEST STEPPER

This Mode allows the user to run a Stepper Motor Test and to set the Maximum Motor Speed. The Maximum Motor Speed is factory set and should not be changed. To test the Motor press the ">>" key.



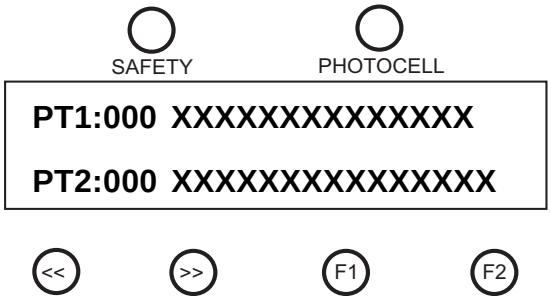
The number beside the PER is the Motor Period in microseconds. By turning the Impression Control Dial for H2, the number will either increase or decrease. The higher the number the slower the motor will go. Beside the MOT V is the actual motor voltage. When OFF, the voltage will be around 0.

To read the online motor voltage, press the "F1" key so the letters ONL appear. The machine voltage will now read around 150 V. "F2" will toggle the motor High or Low Current Limit. Each time the "<<" or ">>" keys are pressed the motor will move one step. Hold down either key to run the motor continuously at setup speed. If "START" is pressed, the machine will run continuously only in the forward direction and the Motor Period will change with the H2 Impression Dial. If the "SETUP" button is pressed, the motor will cycle on and off every 10 seconds.



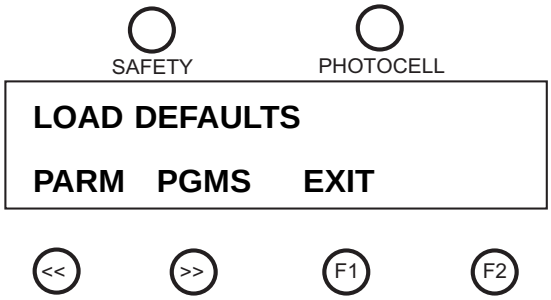
08 TEST POT AND KEYS

This test program will allow you to check the functionality of all the keys on the display and also the Impression Control Dials. PT1 represents the ADC value of Head #1. When the Impression Control Dial for the head is turned, the values beside PT1 will accordingly increase or decrease. The same is done for the Impression Control Dial for Head #2. The X's to the left will disappear any time a key on the display pad is pressed.

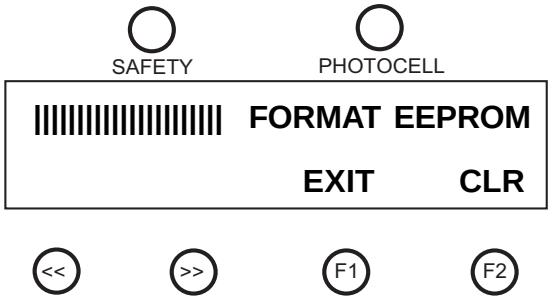


09 LOAD DEFAULTS

This function will load the entire factory set of programs and parameters into EEPROM. All existing EEPROM data is overwritten in this process. PGMS will clear all existing solenoid programs from the memory and load the factory set solenoid programs from 01-100. When PARM or PGMS is pressed, a secondary confirmation screen will be displayed.



10 TEST/FORMAT EEPROM

This program will format and test the total EEPROM. The EEPROM will be erased and all programmable parameter defaults will be reprogrammed along with the solenoid program defaults. CLR will load an empty program into all the program locations of the EEPROM. A secondary "CONFIRM FORMAT" screen will appear before erasing the existing data. An update completion bar will indicate the progress of the update. Once the format is complete, the screen will display "FORMAT COMPLETE".

Note: Formatting cannot be aborted once the action has been commenced.